

1 This listing of claims will replace all prior versions, and listings, of claims  
2 in the application.

3  
4 **Listing of Claims:**

5  
6 Claim 1 (Original): A method for facilitating enhanced readability of a  
7 fixed digital document, the method comprising:

8 obtaining a fixed digital document;

9 paginating one or more pages of the fixed digital document into multiple  
10 virtual pages;

11 identifying and locating lines of text within the one or more pages of the  
12 fixed document;

13 determining whether a virtual-page boundary is coextensive with an  
14 identified line of text;

15 responsive to such determining, adjusting the virtual-page boundary if the  
16 boundary is coextensive with the identified line of text so that the boundary is not  
17 coextensive with the identified line.

18  
19 Claim 2 (Original): A method as recited in claim 1 further comprising  
20 displaying a virtual page of the multiple virtual pages and doing so without  
21 displaying overlap.

1 Claim 3 (Original): A method as recited in claim 1 further comprising  
2 displaying virtual pages of the multiple virtual pages, wherein unrepeated content  
3 of multiple virtual pages starts at a common spatial position on the multiple virtual  
4 pages.

5  
6 Claim 4 (Original): A method as recited in claim 1 further comprising  
7 displaying virtual pages of the multiple virtual pages, wherein a top synthetic  
8 virtual-page margin is displayed so that the content of the virtual page starts at a  
9 common spatial position.

10  
11 Claim 5 (Original): A method as recited in claim 1, wherein the identifying  
12 and locating comprises performing at least minimal OCR on content of the  
13 document to locate line boundaries.

14  
15 Claim 6 (Original): A method as recited in claim 1, wherein the paginating  
16 comprises determining a minimum integer number of virtual pages per page of the  
17 digital document while maintaining legibility, aspect ratio, and good margins.

18  
19 Claim 7 (Original): A computer comprising one or more computer-  
20 readable media having computer-executable instructions that, when executed by  
21 the computer, perform the method as recited in claim 1.

22  
23 Claim 8 (Original): A computer-readable medium having computer-  
24 executable instructions that, when executed by a computer, performs the method  
25 as recited in claim 1.

1  
2 Claim 9 (Previously presented): A method for facilitating enhanced  
3 readability of a digital document, the method comprising:

4 paginating one or more pages of a digital document into multiple virtual  
5 pages, wherein the digital document is a fixed digital document;

6 placing a virtual-page boundary so that such boundary is not coextensive  
7 with a line of text.

8  
9 Claim 10 (Canceled)

10  
11 Claim 11 (Original): A method as recited in claim 9 further comprising  
12 identifying and locating lines of text within the one or more pages of the digital  
13 document.

14  
15 Claim 12 (Original): A method as recited in claim 9 further comprising  
16 determining whether a virtual-page boundary is coextensive with a line of text.

17  
18 Claim 13 (Original): A method as recited in claim 12 further comprising  
19 responsive to such determining, adjusting the virtual-page boundary if the  
20 boundary is coextensive with a line of text so that the boundary is not coextensive  
21 with the line.

22  
23 Claim 14 (Original): A method as recited in claim 9 further comprising  
24 displaying a virtual page of the multiple virtual pages and doing so without  
25 displaying overlap.

1  
2 Claim 15 (Original): A method as recited in claim 9 further comprising  
3 displaying virtual pages of the multiple virtual pages, wherein unrepeated content  
4 of multiple virtual page starts at a common spatial position on the multiple virtual  
5 page.

6  
7 Claim 16 (Original): A method as recited in claim 9, wherein the  
8 paginating comprises determining a minimum integer number of virtual pages per  
9 page of the digital document while maintaining legibility, aspect ratio, and good  
10 margins.

11  
12 Claim 17 (Original): A computer comprising one or more computer-  
13 readable media having computer-executable instructions that, when executed by  
14 the computer, perform the method as recited in claim 9.

15  
16 Claim 18 (Original): A computer-readable medium having computer-  
17 executable instructions that, when executed by a computer, performs the method  
18 as recited in claim 9.

19  
20 Claim 19 (Previously presented): A method for facilitating enhanced  
21 readability of a digital document, the method comprising:

22 paginating one or more pages of a digital document into multiple virtual  
23 pages, wherein the digital document is a fixed digital document;

24 displaying the virtual pages of the multiple virtual pages and doing so  
25 without displaying overlap.

1  
2 Claim 20 (Canceled)

3  
4 Claim 21 (Original): A method as recited in claim 19, wherein the  
5 paginating comprises separating the one or more pages of the digital document  
6 into multiple virtual pages without splitting lines of text of the document.

7  
8 Claim 22 (Original): A method as recited in claim 19, wherein the  
9 paginating comprises:

10 identifying lines of text within the digital document;

11 separating the one or more pages of the digital document into multiple  
12 virtual pages between lines of text.

13  
14 Claim 23 (Original): A computer comprising one or more computer-  
15 readable media having computer-executable instructions that, when executed by  
16 the computer, perform the method as recited in claim 19.

17  
18 Claim 24 (Original): A method as recited in claim 19, wherein the  
19 paginating comprises determining a minimum integer number of virtual pages per  
20 page of the digital document while maintaining legibility, aspect ratio, and good  
21 margins.

22  
23 Claim 25 (Original): A computer-readable medium having computer-  
24 executable instructions that, when executed by a computer, performs the method  
25 as recited in claim 19.

1  
2 Claim 26 (Previously presented): A method for enhancing the readability  
3 of a digital document, the method comprising:

4 paginating one or more pages of a digital document into multiple virtual  
5 pages;

6 displaying the virtual pages of the multiple virtual pages, wherein  
7 unpeated content of multiple virtual page starts at a common spatial position on  
8 the multiple virtual page;

9 lowlighting repeated content on a virtual page, the repeated content is  
10 content repeated from another virtual page.

11  
12 Claim 27 (Canceled)

13  
14 Claim 28 (Original): A method as recited in claim 26, wherein the  
15 paginating comprises separating the one or more pages of the digital document  
16 into multiple virtual pages without splitting lines of text of the document.

17  
18 Claim 29 (Original): A method as recited in claim 26, wherein the  
19 paginating comprises:

20 identifying lines of text within the digital document;

21 separating the one or more pages of the digital document into multiple  
22 virtual pages between identified lines of text.

1 Claim 30 (Original): A method as recited in claim 26, wherein the  
2 paginating comprises determining a minimum integer number of virtual pages per  
3 page of the digital document while maintaining legibility, aspect ratio, and good  
4 margins.

5  
6 Claim 31 (Original): A computer comprising one or more computer-  
7 readable media having computer-executable instructions that, when executed by  
8 the computer, perform the method as recited in claim 26.

9  
10 Claim 32 (Original): A computer-readable medium having computer-  
11 executable instructions that, when executed by a computer, performs the method  
12 as recited in claim 26.

13  
14 Claim 33 (Original): A method for facilitating enhanced readability of a  
15 fixed digital document, the method comprising:

16 paginating one or more pages of the fixed digital document into multiple  
17 virtual pages;

18 displaying one or more virtual pages of the multiple virtual pages and doing  
19 so with overlap on a virtual page, wherein the overlap of one virtual page includes  
20 content of the document repeated from another virtual page;

21 indicating such overlap during the displaying, wherein the content of  
22 overlap is differentiated from other content.

23  
24 Claim 34 (Original): A method as recited in claim 33, wherein the overlap  
25 is lowlighted.

1  
2 Claim 35 (Original): A method as recited in claim 33, wherein unrepeated  
3 content of multiple virtual page starts at a common spatial position on the multiple  
4 virtual page.

5  
6 Claim 36 (Original): A method as recited in claim 33, wherein the overlap  
7 is softly lowlighted.

8  
9 Claim 37 (Original): A method as recited in claim 33, wherein the overlap  
10 is shaded.

11  
12 Claim 38 (Original): A method as recited in claim 33, wherein the overlap  
13 is "grayed."

14  
15 Claim 39 (Original): A method as recited in claim 33, wherein the  
16 paginating comprises determining a minimum integer number of virtual pages per  
17 page of the digital document while maintaining legibility, aspect ratio, and good  
18 margins.

19  
20 Claim 40 (Original): A computer comprising one or more computer-  
21 readable media having computer-executable instructions that, when executed by  
22 the computer, perform the method as recited in claim 33.



1 Claim 41 (Original): A computer-readable medium having computer-  
2 executable instructions that, when executed by a computer, performs the method  
3 as recited in claim 33.

4  
5 Claim 42 (Previously presented): A method for facilitating the enhanced  
6 readability of a digital document, the method comprising:

7 determining an integer number of virtual pages per page of a digital  
8 document while maintaining legibility, aspect ratio, and good margins, wherein  
9 the digital document is a fixed digital document;

10 paginating, accordingly, one or more pages of the digital document into  
11 multiple virtual pages.

12  
13 Claim 43 (Original): A method as recited in claim 42, wherein the  
14 determining determines the minimum integer number of virtual pages per page of  
15 the digital document.

16  
17 Claim 44 (Canceled)

18  
19 Claim 45 (Original): A method as recited in claim 42 further comprising  
20 displaying one or more of the virtual pages.

21  
22 Claim 46 (Original): A computer-readable medium having computer-  
23 executable instructions that, when executed by a computer, performs the method  
24 as recited in claim 42.

25

1 Claim 47 (Previously presented): A reading enhancement system,  
2 comprising:

3 a document obtainer configured to obtain a digital document, wherein the  
4 digital document is a fixed digital document;

5 a virtual paginator configured to paginate one or more pages of the digital  
6 document into multiple virtual pages, the virtual pages having boundaries there  
7 between;

8 a virtual-page analyzer configured to analyze the virtual page;

9 a display generator configured to generate and send the virtual pages of the  
10 multiple virtual pages to a display.

11  
12 Claim 48 (Original): A system as recited in claim 47, wherein the analyzer  
13 is further configured to:

14 identify and locate lines of text within the one or more pages of the digital  
15 document;

16 determine whether a virtual-page boundary is coextensive with an identified  
17 line of text;

18 responsive to such determining, adjust the virtual-page boundary if the  
19 boundary is coextensive with the identified line of text so that the boundary is not  
20 coextensive with the identified line.

21  
22 Claim 49 (Original): A system as recited in claim 47, wherein the analyzer  
23 is further configured to produce lowlighted overlap, wherein the overlap of one  
24 virtual page includes content of the document repeated from another virtual page.  
25

1        Claim 50 (Original): A system as recited in claim 47, wherein the virtual  
2        paginator is further configured to determine a minimum integer number of virtual  
3        pages per page of the digital document while maintaining legibility, aspect ratio,  
4        and good margins.

5  
6        Claim 51 (Previously presented): A computer-readable medium having  
7        computer-executable instructions that, when executed by a computer, performs the  
8        method comprising:

9        paginating one or more pages of a digital document into multiple virtual  
10       pages, wherein the digital document is a fixed digital document;

11       placing a virtual-page boundary so that such boundary is not coextensive  
12       with an identified line of text.

13  
14       Claim 52 (Original): A computer-readable medium having computer-  
15       executable instructions that, when executed by a computer, performs the method  
16       comprising:

17       paginating one or more pages of a digital document into multiple virtual  
18       pages;

19       displaying one or more virtual pages of the multiple virtual pages and doing  
20       so with lowlighted overlap, wherein the overlap of one virtual page includes  
21       content of the document repeated from another virtual page.